

# Charles Street Parking Study Report

## 1. Parking Inventory

The total number of parking spaces was determined from spaces delineated by parking meters, available curb length, and field observations. For spaces that were not delineated by parking meters, such as resident and visitor parking, total spaces were initially determined based on the length of curb, accounting for driveways, intersections, hydrants and other signage. The inventory was refined by field observations of parking behavior, taking into account the number of vehicles that could reasonably fit along the length of curb without violating signage or physically obstructing driveways, intersections, or hydrants. The inventory shown in the table below accounts for the total number of legal parking spaces available within the study area. The majority (63%) of spaces in the study area are metered, followed by resident (22%), and visitor (4%).

See map of parking inventory by regulation on page 14.

| Regulation Type          | Restriction   | Total Spaces |
|--------------------------|---|--------------|
| Meter                    | Mon - Sat. 8AM - 8PM (2 hr limit; \$2/hr)   | 109          |
| Commercial Vehicle/Meter | CV only 7AM - 4PM; Except Sun.  | 6            |
| Tow Zone/Meter           | Temporary CZ (1 space); City Licensed Sightseeing Bus 8AM-6PM (10 min limit) (3 spaces) | 4            |
| Valet/Meter              | Valet Only Thurs-Sat 5PM - 12AM (10 min limit)  | 3            |
| Valet/Commercial Vehicle | CV only 7AM - 4PM; Except Sun. (30 min limit); Valet Only 4PM - 12AM (15 min limit)     | 2            |
| Valet                    |   | 2            |
| Resident Parking         |   | 38           |
| Visitor                  | 8AM - 6PM (2 hr limit)  | 7            |
| Taxi                     |   | 1            |
| Other                    | Unofficial Space (vehicle observed in inventory)  | 2            |
| <b>TOTAL</b>             |   | <b>174</b>   |

## **2. Data Collection Methodology**

- Turnover data was collected along Charles Street from Beacon Street to Cambridge Street using:
  - Paper maps which outlined the pre-determined route
  - Data collection sheets which outlined each available space a car could park based on a field inventory conducted Monday November 11, 2019.
- The following side streets were included in the inventory, approximately 100' to the nearest landmark from Charles Street:
  - Chestnut Street
  - Mt Vernon Street
  - Pinckney Street
  - Revere Street
- Data was collected over two days, one weekday (11/13) and one Saturday (11/16) in 30-minute increments from 7:00 AM – 12:00 AM, with the last count beginning at 11:30 PM.
- The first three digits of each license plate and any applicable notes, listed below, were recorded:
  - CV: Commercial Vehicle
  - CZ: Construction Zone
  - DP: Double Parking
  - DOD: Drop off Delivery
  - DOP: Drop off Person
  - LD: Loading
  - PC: Passenger Car (for use if it's in a tow zone or loading zone)

## **3. Data & Analysis Assumptions**

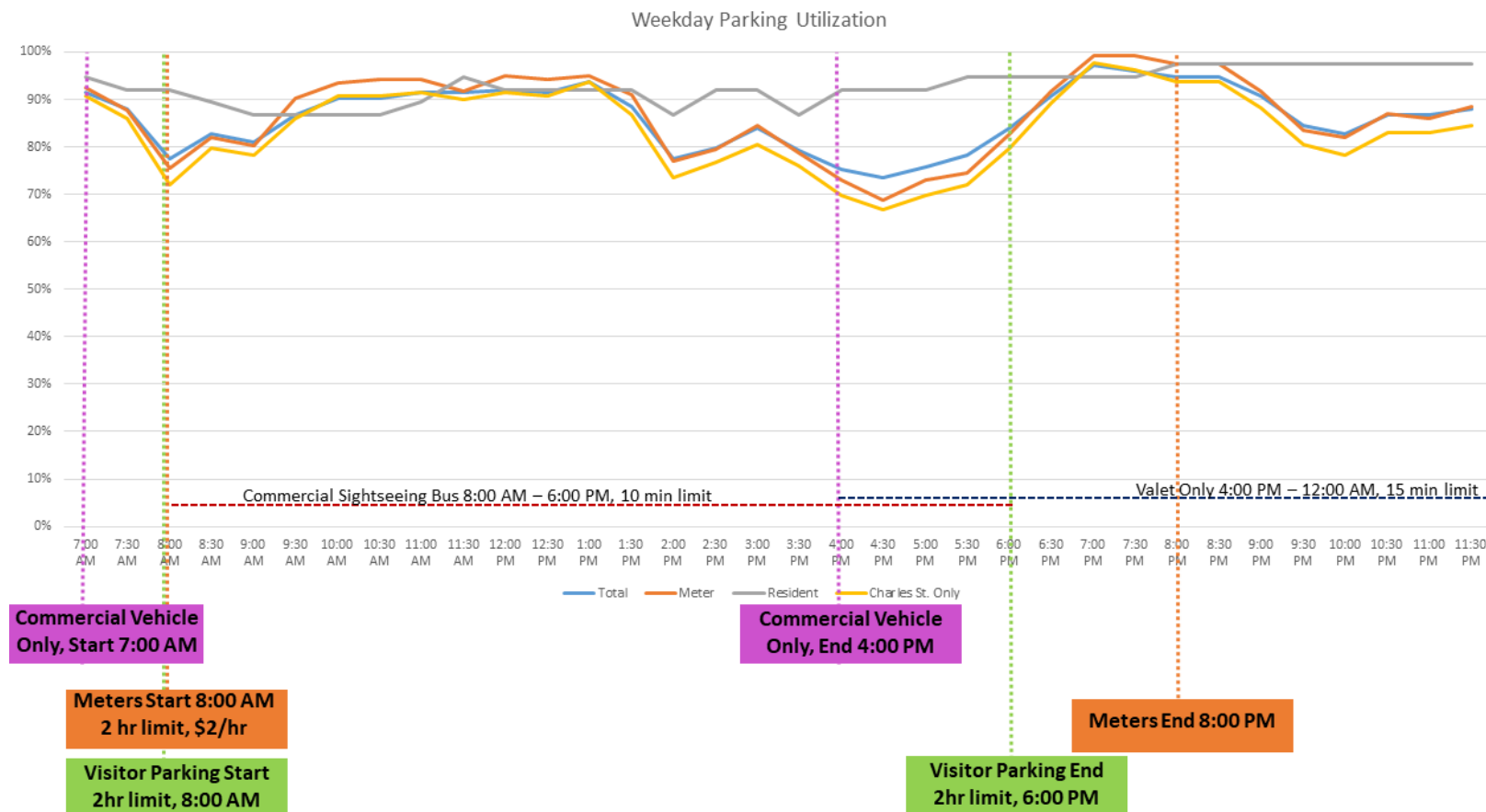
- Data collected along Charles St. was grouped by block and by curb regulation.
- Data analyzed for utilization and turnover charts only included legal parking spaces (not any illegal parking at hydrants, driveways, or in tow zones).

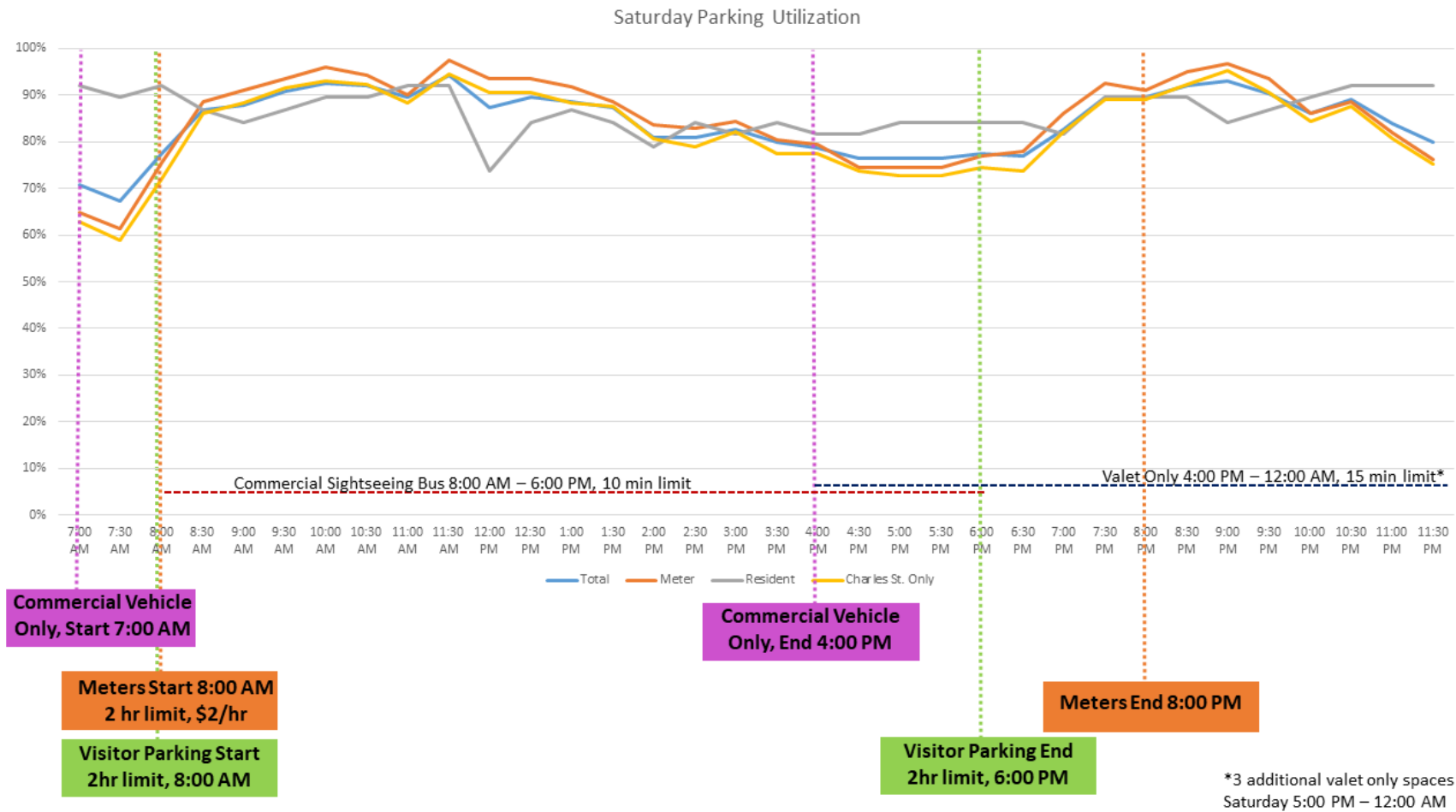
## **4. Utilization Findings**

- Overall parking in the study area is well utilized throughout the day.
- Utilization dips the lowest (below 80%) for both days around 8:00 AM and again from about 2:00 – 6:00 PM.

- Meter parking is well utilized, especially midday and in the evenings on both weekdays and weekends. Demand is likely driven by restaurants, cafes, retail, and bars in the area. At \$2 per hour, parking meter prices are also lower than in other nearby retail areas such as Newbury Street. The low price of parking may incentivize drivers to stay longer. The analysis includes all spaces that are metered and are shared with meters.
- Residential parking is highly utilized throughout the day – with a slight dip midday to early evening on Saturday. Residential parking seems to be used as long-term vehicle storage rather than daily travel during the week.

See charts on pages 3-7 and maps on pages 15 - 20. The graphs on pages 3 and 4 show parking utilization on Charles Street and the side street segments identified in the data collection methodology. The graphs on pages 6 and 7 show data for Charles Street only.







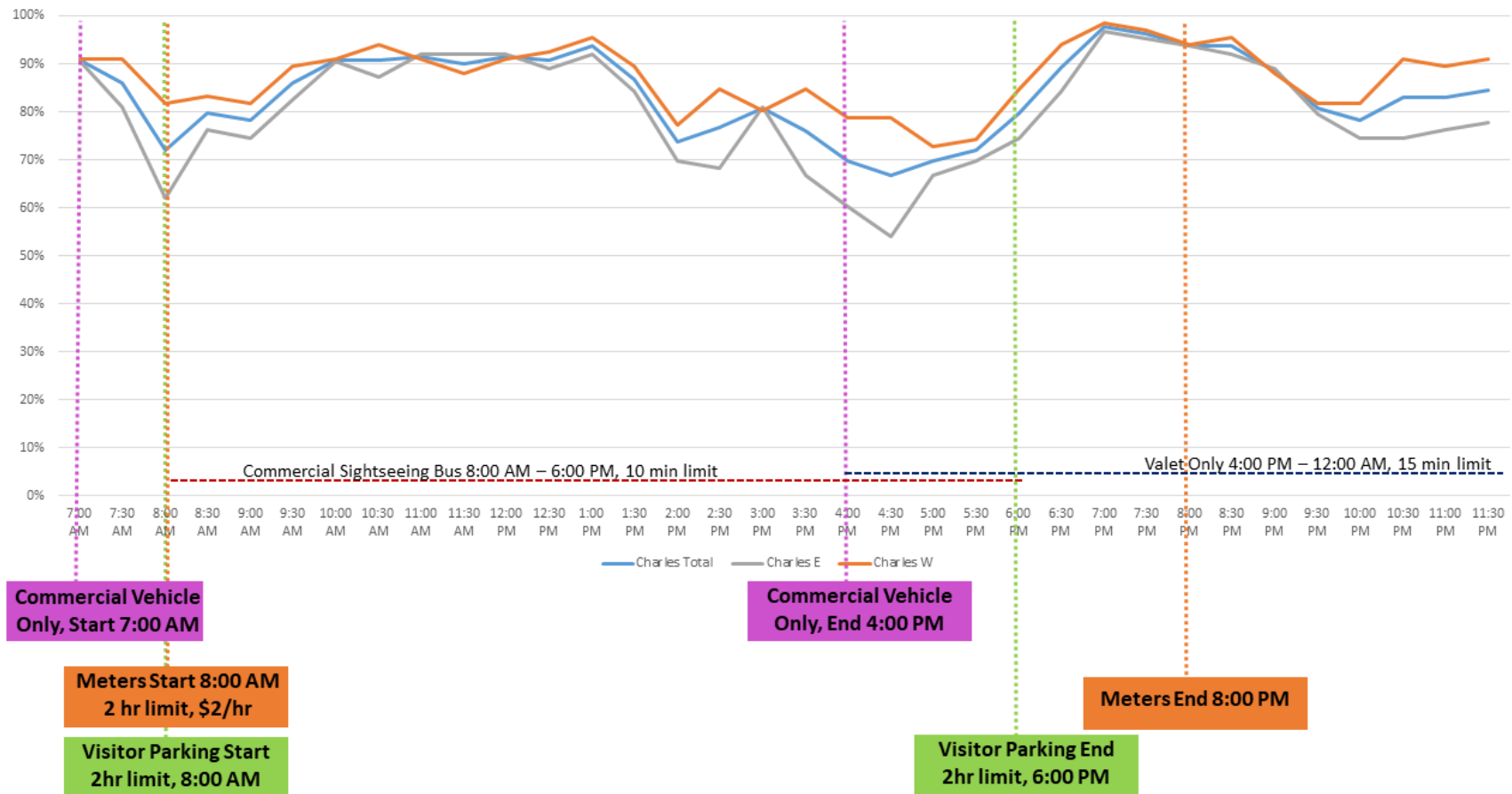
## 5. Charles Street

Generally, utilization on the east side of Charles Street is slightly lower than on the west side. This could partly be attributed to the fact that the west side of Charles Street has more standard meter spaces whereas there are more commercial vehicle only, taxi, and valet restrictions on the east side of Charles Street.

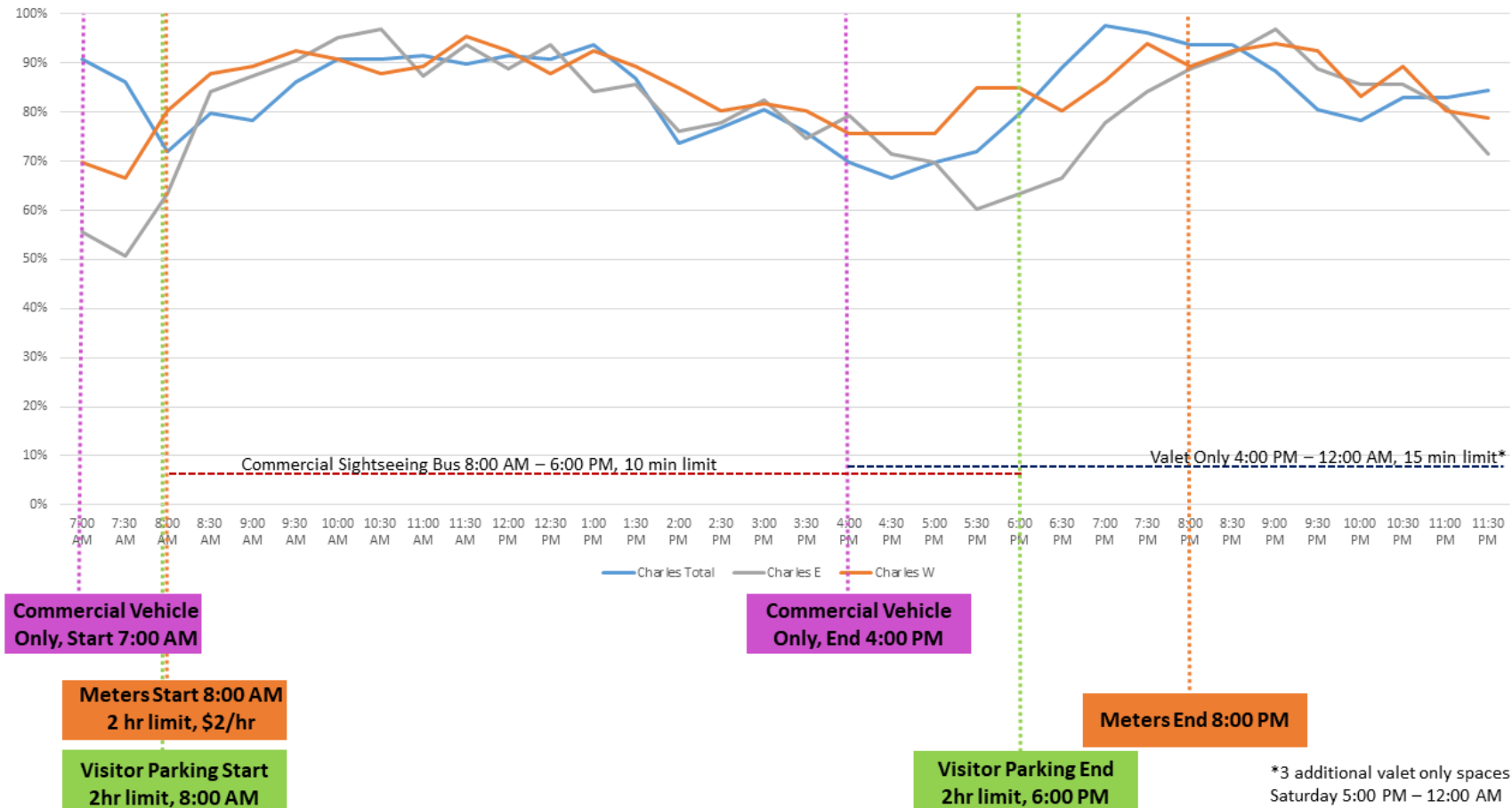
| Regulation Type          | Restriction   | Charles W | Charles E | Total Spaces |
|--------------------------|---|-----------|-----------|--------------|
| Meter                    | Mon - Sat. 8AM - 8PM (2 hr limit; \$2/hr)   | 60        | 49        | 109          |
| Commercial Vehicle/Meter | CV only 7AM - 4PM; Except Sun.  | 1         | 5         | 6            |
| Tow Zone/Meter           | Temporary CZ (1 space); City Licensed Sightseeing Bus 8AM-6PM (10 min limit) (3 spaces) | 3         | 1         | 4            |
| Valet/Meter              | Valet Only Thurs-Sat 5PM - 12AM (10 min limit)  | 0         | 3         | 3            |
| Valet/Commercial Vehicle | CV only 7AM - 4PM; Except Sun. (30 min limit); Valet Only 4PM - 12AM (15 min limit)     | 0         | 2         | 2            |
| Valet                    |   | 2         | 0         | 2            |
| Resident Parking         |   | 0         | 0         | 0            |
| Visitor                  | 8AM - 6PM (2 hr limit)  | 0         | 0         | 0            |
| Taxi                     |   | 0         | 1         | 1            |
| Other                    | Unofficial Space (vehicle observed in inventory)  | 0         | 2         | 2            |
| <b>TOTAL</b>             |   | <b>66</b> | <b>63</b> | <b>129</b>   |

See charts on next pages.

Weekday Parking Utilization - Charles St ONLY



Saturday Parking Utilization - Charles St ONLY



## 6. Double Parking & Illegal Parking Observations

- Double parking occurs most frequently on the northern end of Charles Street between Revere Street and Charles Circle. Note that double parked construction vehicles were excluded from this analysis.
- Illegal parking (parking in front of hydrants and driveways) also occurs most frequently on the northern end of Charles Street between Revere Street and Charles Circle. The number of illegal parkers was observed to be about the same for both days.
- Construction impacted a total of 5 spaces (3 meters and 2 illegal spaces) on the east side of Charles Street just south of Charles Circle. Construction activity was observed from 10:00 AM – 3:30 PM on the weekday and 8:30 AM – 2:00 PM on Saturday. Construction vehicles were excluded from both the double parking and illegal parking analysis.

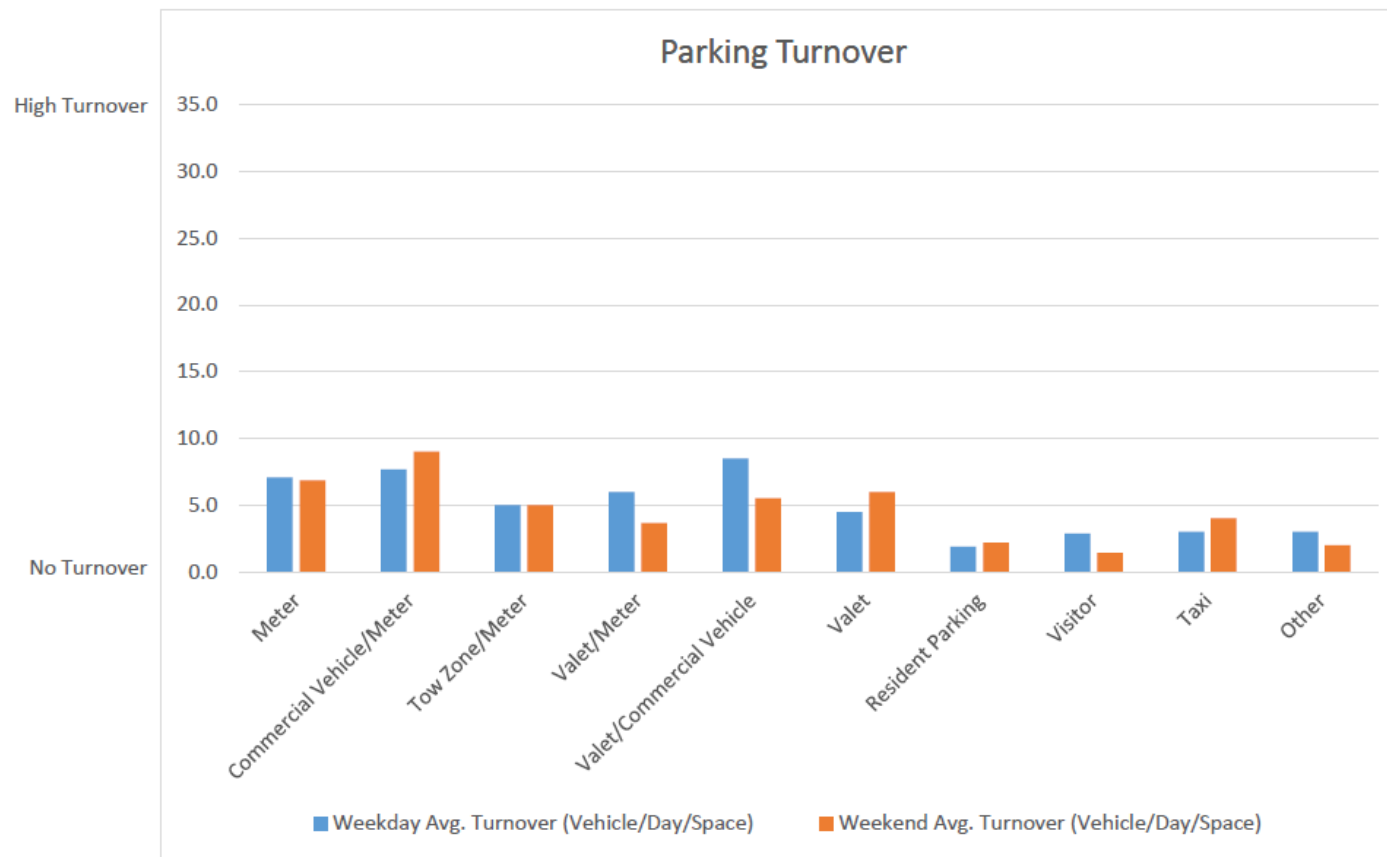
See maps on pages 21-24 in appendix.

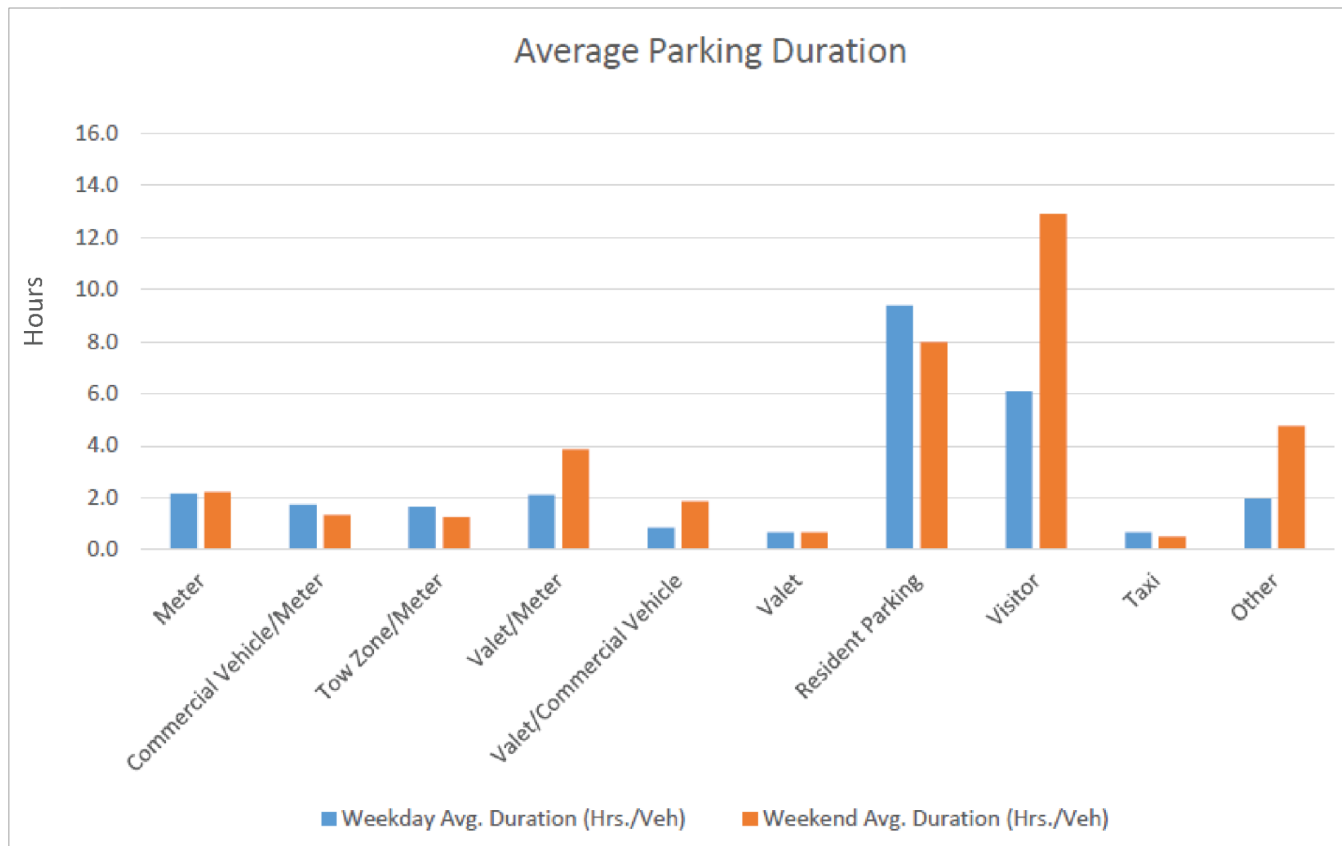
## 7. Turnover Analysis & Findings

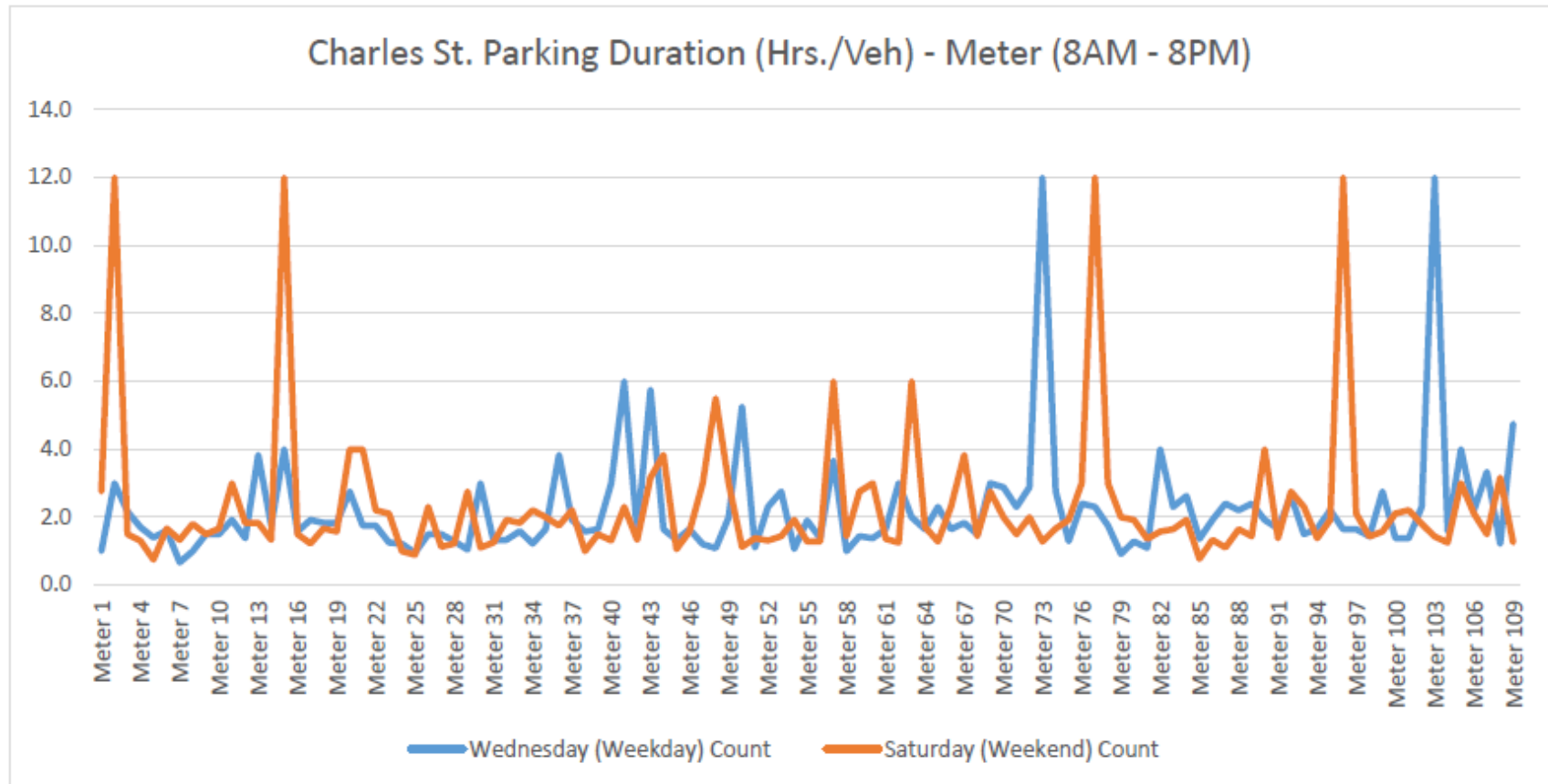
- Parking turnover information captures and evaluates the duration of stay of vehicles at specified locations. Parking turnover is based on the total number of unique vehicles (represented by the first 3-digits of the license plate) per parking space within the duration of study. Turnover rates in this study range from 1.0, representing no turnover, to a theoretical maximum of 34.0, as there were 34 counts taken throughout the day.
- Average duration is the average time for which the parking space was used by a vehicle. The maximum time a vehicle could be observed parking in this study is 17.0 hours.
- Overall, most parking spaces are used for an average duration of approximately 2-hours or less. It is notable that the average duration for both resident and visitor parking significantly exceed this value on both weekdays and weekends:
  - Resident parking has an average duration of between 8 and 9.5 hours per vehicle on both weekdays and weekends.
  - The average duration of visitor parking, despite the 2-hour limit, ranges from 6 hours (weekday) to nearly 13 hours (weekend) per vehicle.
  - This indicates that these non-metered spaces – located on side streets within about 100' of Charles Street – are primarily used for long-term vehicle storage.
- While the average duration of meter parking is nearly 2-hours, there are some vehicles that stayed in meter spaces for the full regulated time (8:00 AM – 8:00 PM) of 12 hours. This was also observed in a meter space shared with valet parking, where one vehicle remained parked for the full duration of both the meter and valet regulatory periods on Saturday.

- Commercial Vehicle (CV)/Meter spaces are generally used less than the 2-hour limit. However, there were two spaces along the east side of Charles Street between Revere Street and Charles Circle that were used for more than the 2-hour limit, on both the weekday and Saturday.

See charts and tables on next pages.







Meters are numbered according to the walking route performed for data collection, starting on the east side of Charles Street at Beacon Street, continuing north to Charles Circle and then reversing direction (around Meter 50) and continuing on the west side of Charles Street heading south back to Beacon Street. This graph shows average parking duration during the data collection period.

See corresponding maps on pages 25-26 in appendix.

| Parking Space Location             | Weekday Duration (Hrs./Veh.) |                  | Saturday Duration (Hrs./Veh.) |                  |
|------------------------------------|------------------------------|------------------|-------------------------------|------------------|
|                                    | CV: 7AM - 4PM                | Meter: 4PM - 8PM | CV: 7AM - 4PM                 | Meter: 4PM - 8PM |
| Charles E: Branch - Chestnut       | 1.0                          | 1.5              | 0.7                           | 1.0              |
|                                    | 1.3                          | 1.0              | 0.7                           | 0.6              |
| Charles E: Revere - Charles Circle | 1.1                          | 1.8              | 1.4                           | 0.7              |
|                                    | 1.6                          | 1.3              | 1.3                           | 3.0              |
|                                    | 4.3                          | 0.7              | 1.1                           | 1.0              |
| Charles W: Charles Circle - Revere | 1.3                          | 1.0              | 0.8                           | 2.0              |

| Parking Space Location           | Weekday Duration (Hrs./Veh.) | Saturday Duration (Hrs./Veh.) |
|----------------------------------|------------------------------|-------------------------------|
|                                  | Sightseeing Bus (8AM - 6PM)  | Sightseeing Bus (8AM - 6PM)   |
| Charles W: Pinckney - Mt. Vernon | 0.5                          | 0.5                           |
|                                  | 0.5                          | 0.5                           |
|                                  | N/A                          | 0.5                           |

| Parking Space Location           | Weekday Duration (Hrs./Veh.) | Saturday Duration (Hrs./Veh.) |                   |
|----------------------------------|------------------------------|-------------------------------|-------------------|
|                                  | Meter: 8AM-8PM*              | Meter: 8AM-5PM                | Valet: 5PM - 12AM |
| Charles E: Mt. Vernon - Pinckney | 1.4                          | 3.0                           | 1.5               |
|                                  | 1.4                          | 9.0                           | 7.0               |
|                                  | 2.7                          | 2.0                           | 3.5               |

\*NOTE: Valet only parking was only in effect Thursday – Saturday in these spaces and therefore not applicable on the weekday (Wednesday) that the parking data collection was performed.



| Parking Space Location             | Weekday Duration (Hrs./Veh.) |                   | Saturday Duration (Hrs./Veh.) |                   |
|------------------------------------|------------------------------|-------------------|-------------------------------|-------------------|
|                                    | CV: 7AM - 4PM                | Valet: 4PM - 12AM | CV: 7AM - 4PM                 | Valet: 4PM - 12AM |
| Mt. Vernon: Charles-Cedar Lane Way | 0.7                          | 1.3               | 2.5                           | 1.0               |
|                                    | 0.7                          | 1.0               | 2.0                           | 1.3               |

| Parking Space Location                   | Weekday Duration (Hrs./Veh.) | Saturday Duration (Hrs./Veh.) |
|--|------------------------------|-------------------------------|
|  | Visitor (8AM - 6PM)          | Visitor (8AM - 6PM)           |
| Chestnut S: Charles - Cedar Lane Way     | 3.2                          | 4.8                           |
|  | 10.0                         | 10.0                          |
| Pinckney N: Cedar Lane Way - Charles     | 10.0                         | 10.0                          |
|  | 10.0                         | 10.0                          |
|  | 1.6                          | 10.0                          |
| Revere N: Charles - Charles River Square | 10.0                         | 10.0                          |
|  | 1.9                          | 3.3                           |

# Appendix

